



## SECTION 1.5: BOTTLE FEEDING BASICS

### WHAT IS BOTTLE FEEDING?

Ideally, all babies would be breastfed. However, this is not always possible. Bottle feeding offers another way to provide babies with necessary nutrition. There are many different types of bottles and nipples that can be used for feeding depending on a baby's needs. Additionally, breast milk and formula can both be offered in a bottle.

### WHAT IS THE IMPORTANCE OF BOTTLE FEEDING

*Bottle feeding is important because:*

- ① It is often the first experience a baby has with feeding.
- ② It assists with the development of other important skills for feeding and talking such as chewing foods, eating or drinking off of utensils and cups.
- ③ It offers babies the frequent experience of closeness and interaction with a responsive and attuned caregiver.

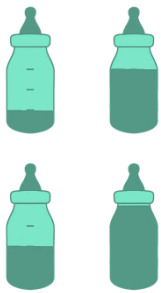
### WHAT ARE THE BENEFITS OF BOTTLE FEEDING?

Bottle feeding has many benefits for both babies and their caregivers. When good bottle feeding is provided to babies, feedings are safer, more efficient and more enjoyable.

*Good bottle feeding:*

- ① Helps babies feel warm and full
- ② Offers comfort and warmth from a caring adult
- ③ Teaches children they can depend on others to take care of them and meet their needs

BENEFITS OF GOOD BOTTLE FEEDING	RISKS OF POOR BOTTLE FEEDING
<p>↓ OCCURRENCE OF ASPIRATION, ILLNESS, DEATH</p> <p>↑ efficiency of feedings (faster)</p> <p>↑ oral intake during feedings</p> <p>↑ enjoyment during feedings (for children and caregivers), and positive feelings toward eating develop</p> <p>↑ capacity for children to transition to greater challenges (solid foods, cup drinking, utensil use)</p>	<p>↑ OCCURRENCE OF ASPIRATION, ILLNESS, DEATH</p> <p>↓ efficiency of feedings (slower)</p> <p>↓ oral intake during feedings → food refusals</p> <p>↓ enjoyment during feedings (for children and caregivers), and negative feelings toward eating develop</p> <p>↓ capacity for children to transition to greater challenges (solid foods, cup drinking, utensil use)</p>



## TYPES OF BOTTLES AND NIPPLES<sup>18</sup>

There are many different types of bottles and nipples, including various shapes, sizes, styles and materials. It's important that the nipple shape, size and flow speed match a baby's mouth, sucking skills and developmental and physiological needs. So, as caregivers, it's helpful to understand the differences in order to make the best choice for each baby.

**BOTTLE SHAPES: STANDARD (“STRAIGHT”) OR BENT (“ANGLED”)**



Standard “straight” bottles are most common and typically the easiest to find. Bent “angled” bottles are helpful for keeping a baby's chin tucked while bottle feeding. They are also designed to reduce gas and fussiness by limiting a baby's opportunity for swallowing air when fed.



### BOTTLE SIZES: SMALL AND LARGE

Smaller bottles (120 ml or less) are useful when the baby you're feeding is small and he isn't yet taking large volumes. Larger bottles are helpful because they hold greater volumes of liquid for the growing baby. Pro-Tip: Smaller bottles are easier for a baby to hold when they are learning how to feed themselves. Smaller bottle = lighter weight.

### BOTTLE MATERIALS: PLASTIC AND GLASS

Plastic baby bottles are most common and typically the easiest to find. They also won't break if dropped and they are lightweight, which can be nice for a caregiver. Glass bottles are sturdier; however, they can break if dropped and they are much heavier to hold for caregivers and babies.

### BOTTLE NIPPLE SHAPES

Nipples come in a variety of shapes. Standard nipples are typically tall or "long" and round on the top. Orthodontic nipples are made to fit the inside of a baby's mouth. They are typically wide at the base and tip and narrow in the middle. Other nipples are shaped to look like a woman's nipple. Nipples are made in different shapes because every baby's mouth is shaped differently. For example: Some babies need a shorter nipple to fit inside their small mouth.





**From Left:**  
**Straight nipple,**  
**natural nipple,**  
**and two varying**  
**standard nipple**  
**sizes.**

## BOTTLE NIPPLE SIZES

The nipple size determines the actual flow of the liquid from the nipple. The size given to a nipple denotes the size of the hole. Typically, the smaller the size (number), the slower the flow of liquid from the nipple. The larger the size (number), the faster the flow of liquid from the nipple. It's important to understand the flow of the nipple because choosing the wrong size may lead to a baby who feeds in an unsafe or uncomfortable manner (too slowly, too quickly or swallows too much air).

Below are typical nipple sizes (or levels) in order from smallest hole (slowest rate) to largest hold (fastest rate).



*Level #: Nipple levels can usually be found printed on the bottom or side of the nipple. Look closely as they are sometimes very small and hard to see!*



NIPPLE SIZE/LEVEL	TYPICAL AGES
Ultra-Preemie Size	Premature babies → 3 months old
Preemie Size	Premature babies → 3 months old
Size/Level 1	0 → 6 months old
Size/Level 2	> 6 → months old
Size/Level 3	> 6 → months old
Size/Level 4	> 6 → months old



*Remember: Nipple sizes/levels and associated ages are a general guideline and do not necessarily need to be strictly followed for every baby. Not every baby will use every size of nipple. Some babies will use the same size nipple for the entire time they are bottle fed. It is most important to choose a nipple size based on what the baby's needs are and what flow rate they are best able to safely manage.*



*Remember: Nipples should never be cut to change the flow rate. This can be dangerous for a baby.*

**A caregiver feeds a young baby using a Dr. Brown's standard shaped plastic bottle and standard nipple.**



## BOTTLE NIPPLE MATERIALS

Bottle nipples are typically made of silicone or latex. Many babies will often have a preference or a need for a specific material. For example: A baby with a weak suck may be more successful when sucking from a softer latex nipple. Note: Be mindful of latex allergies. Below are the primary differences between silicone and latex nipples.

<i>Silicone</i>	<i>Latex</i>
More Durable	Softer
Easier to clean	Can hold odor of formula or milk
Can last up to 1 year	Wears out faster



### WHEN TO CLEAN AND REPLACE BOTTLES AND NIPPLES

*Always boil* in hot, soapy water or in a dishwasher if available

*Always sterilize* bottle and bottle parts in boiling water for five minutes

*Always wash* bottles and nipples after every single feeding

*Regularly check* nipples wear and tear

*Always replace* any bottles and nipples that show signs of excessive wear or



## KEY ELEMENTS OF BOTTLE FEEDING

KEY ELEMENTS	SUCCESSFUL BOTTLE FEEDING SIGNS
Feeding position matches a baby's needs	<ul style="list-style-type: none"> <li>○ Safe, supportive, and follows key elements of positioning (Refer to Chapter 1, Section 1)</li> <li>○ Baby and caregiver are comfortable</li> <li>○ Baby is engaged for feeding (not falling asleep)</li> <li>○ Baby is calm for feeding (not fussy)</li> <li>○ Feeding takes 30 minutes or less</li> </ul>
Bottle, nipple and flow rate match a baby's needs	<ul style="list-style-type: none"> <li>○ Rate is not too fast or too slow for baby</li> <li>○ No leaking liquid from mouth, frequent coughing, choking or gagging</li> <li>○ Baby is alert and engaged for feeding (not falling asleep)</li> <li>○ Baby comfortably sucks, swallows and breathes while feeding – no gasping for breath</li> <li>○ Baby is calm for the feeding (not fussy)</li> <li>○ Feeding takes 30 minutes or less</li> </ul>
Feeding cues are understood and respected	<ul style="list-style-type: none"> <li>○ Caregivers anticipate baby's hunger before baby starts to cry</li> <li>○ Caregivers anticipate baby's fullness promptly and do not overfeed or force feed</li> <li>○ Baby enjoys feedings and actively participates</li> </ul>
Breaks are provided as needed	<ul style="list-style-type: none"> <li>○ Caregivers offer breaks for burping, diaper changes or positioning changes</li> <li>○ Caregivers offer smaller, more frequent feedings, if needed</li> <li>○ Caregivers are attentive to baby's signs of fatigue (Refer to Appendix 9L-2)</li> <li>○ Baby feeds efficiently for 30 minutes or less</li> </ul>
Social interaction is provided often	<ul style="list-style-type: none"> <li>○ Caregivers smile, talk, sing and gaze at baby during feedings</li> <li>○ Baby enjoys feedings and actively participates</li> <li>○ Baby grows and thrives</li> </ul>



## BOTTLE FEEDING TIPS FOR BABIES

<b>TIP 1:</b>	<u>Each baby needs individual consideration when deciding on a bottle, nipple and flow rate.</u> Not every baby will do well with the same bottle, nipple and flow rate. Choose what will work best to match a baby's individual needs.
<b>TIP 2:</b>	<u>A baby's developmental skill level will impact the bottle, nipple and flow rate they need.</u> Choose based on a baby's needs, skill-level and age. For example: A 4-month-old baby who is very weak may do best using a slower flow nipple, despite her growing age.
<b>TIP 3:</b>	<u>Pay attention to what the baby is telling you.</u> Make changes to a bottle, nipple or flow rate when the baby is showing you that a change needs to be made.
<b>TIP 4:</b>	<u>Always check the flow rate of the bottle before beginning a feeding.</u> An ideal flow rate from a nipple is when a few drops of liquid drip out after turning the bottle upside down. The dripping should stop shortly afterward. If liquid is too fast for a baby, try a nipple with a smaller hole. If liquid is flowing too slowly for a baby and they are sucking too hard, try a nipple level with a larger hole.
<b>TIP 5:</b>	<u>Finding the best bottle, nipple, and/or flow can sometimes take a lot of work (but it is worth it).</u> Even a baby who is typically developing may require caregivers try different options until they find the one that works just right. Take your time, make one change at a time so that a baby is not overwhelmed, watch and see how a baby responds, and make small adjustments as needed.
<b>TIP 6:</b>	<u>Good positioning will lead to good bottle feeding.</u> Finding a safe and comfortable position for a baby during bottle feedings is critical. Provide a position that offers adequate physical support and make necessary adjustments.
<b>TIP 7:</b>	<u>Always make a connection.</u> Offer positive interactions with a baby while bottle feeding each and every day. Many babies will actually feed better when gently spoken and sang to, smiled at and engaged with during a feeding.





## FINAL THOUGHTS

The primary goal of bottle feeding is to provide positive feeding experiences for both a baby and caregiver that also supports the nutritional intake and growth of the baby. Not all bottles, nipples and flow rates will work with every baby. Finding a bottle, nipple and flow rate that are a good match for a baby is essential. When experiencing challenges, seek support of others. Sharing past experiences, challenges and questions can lead to greater problem-solving and creative solutions and alleviate caregiver and child distress.



*For more information on positioning, refer to Chapter 1, Section 1 and Chapter 2, Section 3.*

*For more information about bottle feeding challenges, refer to Chapters 2 and 7 and Appendix 9M.*